

# Mechanical stress

Mechanical stress either make instant damage to the product or causes potential damages that may only be visible in long term. It may influence product performance or safety of the user. It may also cause malfunctions, reduced efficiency or total failure.

The effects of vibration over a wide range of frequency and acceleration levels can be simulated as well as shock, free fall, drop, tumble and impact according to IEC 60068-series.

## Non-exhaustive scope:

- IEC 60068-2-6
- IEC 60068-2-27
- IEC 60068-2-31
- IEC 60068-2-64
- IEC 60068-2-31
- IEC 60068-2-75

## Tests:

- Vibration (sinusoidal)
- Vibration (random)
- Vibration (Sine on Random)
- Shock and Bump
- Free Fall
- Drop
- Tumble
- Impact

Related information

[IP - Ingress protection](#) [1]

[Vibration testing](#) [2]

[Climatic testing](#) [3]

[Shock testing](#) [4]

[ESD electro static discharge](#) [5]

---

**Source URL:** <https://nemko.com/product-testing/reliability-testing/mechanical-stress>

## Links

[1] <https://nemko.com/product-testing/reliability-testing/ingress-protection-ip>

[2] <https://nemko.com/product-testing/reliability-testing/vibration-testing>

[3] <https://nemko.com/product-testing/reliability-testing/climatic>

[4] <https://nemko.com/product-testing/reliability-testing/shock-testing>

[5] <https://nemko.com/product-testing/reliability-testing/esd-anti-static-characterization>